## PLS in Chemometrics with R

## Majid Sarmad<sup>1,2,\*</sup>

- 1. Fedowsi University of Mashhad
- 2. Faculty of Maths. Sciences
- \* Contact author: sarmad@um.ac.ir

Keywords: NIR, Partial Least Squares

Partial least squares can be used when the number of observations are more than the number of variables. Particularly, in chemometrics, when a huge number of NIR (near infrared) wavelengths are passed through a substance, they are studying on a model between the output of wavelengths and one or more characteristics in the substance. Modeling cannot be made using a large number of initial experiments as it may cost a lot.

pls and some other packages in R do PLS modeling; including PCR, Cross Validation and PLS. In a real example, using R, it will be tried to model PH in Kiwi fruit by 601 NIR wavelengths.